

SEQUENCE LISTING

<110> SmithKline Beecham Biologicals S.A.

<120> Novel Compounds

<130> BM45412

<160> 10

<170> FastSEQ for Windows Version 3.0

<210> 1

<211> 1509

<212> DNA

<213> Moraxella catarrhalis

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cccgccaaag	tgggtggtaaa	aatggaaacc	gttgaaaag	tcatgcgtct	ggcagatggc	300
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gaaggcgcaca	ccatcgaaat	gcagttctca	aaccacccag	attcaaaaat	gccccataat	420
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acatcatcat	tccatgtcat	ttggtgagatt	tttgataagg	ttcactttga	gggtggtaag	900
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<211> 502

<212> PRT

<213> Moraxella catarrhalis

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Ile Val Thr His Ala Pro Glu Val Pro Pro Val Asp Arg Asp His		
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Pro Ala Lys Val Val Val Lys Met Glu Thr Val Glu Lys Val Met Arg		
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Leu Ala Asp Gly Val Glu Tyr Gln Phe Trp Thr Phe Gly Gly Gln Val		
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Pro Gly Gln Met Ile Arg Val Arg Glu Gly Asp Thr Ile Glu Val Gln		
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Ala Ala Thr Gly Pro Gly Gly Ala Glu Ala Ser Phe Thr Ala Pro		
145	150	155
Gly His Thr Ser Thr Phe Ser Phe Lys Ala Leu Gln Pro Gly Leu Tyr		
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Val Tyr His Cys Ala Val Ala Pro Val Gly Met His Ile Ala Asn Gly		
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Met Tyr Gly Leu Ile Leu Val Glu Pro Lys Glu Gly Leu Pro Lys Val		
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Asp Lys Glu Tyr Tyr Val Met Gln Gly Asp Phe Tyr Thr Lys Gly Lys		
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Glu Asp Ala Glu Tyr Val Val Phe Asn Gly Ser Val Gly Ala Leu Thr		
245	250	255
Gly Glu Asn Ala Leu Lys Ala Lys Val Gly Glu Thr Val Arg Leu Phe		
260	265	270
Val Gly Asn Gly Gly Pro Asn Leu Thr Ser Ser Phe His Val Ile Gly		
275	280	285
Glu Ile Phe Asp Lys Val His Phe Glu Gly Gly Lys Gly Glu Asn His		
290	295	300
Asn Ile Gln Thr Thr Leu Ile Pro Ala Gly Gly Ala Ala Ile Thr Glu		
305	310	315
Phe Lys Val Asp Val Pro Gly Asp Tyr Val Leu Val Asp His Ala Ile		
325	330	335
Phe Arg Ala Phe Asn Lys Gly Ala Leu Gly Ile Leu Lys Val Glu Gly		
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Glu Glu Asn His Glu Ile Tyr Ser His Lys Gln Thr Asp Ala Val Tyr		
355	360	365
Leu Pro Glu Gly Ala Pro Gln Ala Ile Asp Thr Gln Glu Ala Pro Lys		
370	375	380
Thr Pro Ala Pro Ala Asn Leu Gln Glu Gln Ile Lys Ala Gly Lys Ala		
385	390	395
Thr Tyr Asp Ser Asn Cys Ala Ala Cys His Gln Pro Asp Gly Lys Gly		
405	410	415
Val Pro Asn Ala Phe Pro Pro Leu Ala Asn Ser Asp Tyr Leu Asn Ala		
420	425	430
Asp His Ala Arg Ala Ala Ser Ile Val Ala Asn Gly Leu Ser Gly Lys		
435	440	445
Ile Thr Val Asn Gly Asn Gln Tyr Glu Ser Val Met Pro Ala Ile Ala		
450	455	460
Leu Ser Asp Gln Gln Ile Ala Asn Val Ile Thr Tyr Thr Leu Asn Ser		
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<211> 1506

<212> DNA

<213> Moraxella catarrhalis

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<212> PRT

<213> Moraxella catarrhalis

<400> 4

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Met Tyr Gly Leu Ile Leu Val Glu Pro Lys Glu Gly Leu Pro Lys Val		
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Asp Lys Glu Tyr Tyr Val Met Gln Gly Asp Phe Tyr Thr Lys Gly Lys		
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Tyr Gly Glu Gln Gly Leu Gln Pro Phe Asp Met Glu Lys Ala Ile Arg		
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Glu Asp Ala Glu Tyr Val Val Phe Asn Gly Ser Val Gly Ala Leu Thr		
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Gly Glu Asn Ala Leu Lys Ala Lys Val Gly Glu Thr Val Arg Leu Phe		
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Val Gly Asn Gly Gly Pro Asn Leu Thr Ser Ser Phe His Val Ile Gly		
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Asn Ile Gln Thr Thr Leu Ile Pro Ala Gly Gly Ala Ala Ile Thr Glu		
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Phe Lys Val Asp Val Pro Gly Asp Tyr Val Leu Val Asp His Ala Ile		
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Glu Glu Asn His Glu Ile Tyr Ser His Lys Gln Thr Asp Ala Val Tyr		
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Leu Pro Glu Gly Ala Pro Gln Ala Ile Asp Thr Gln Glu Ala Pro Lys		
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Thr Pro Ala Pro Ala Asn Leu Gln Glu Gln Ile Lys Ala Gly Lys Ala		
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Thr Tyr Asp Ser Asn Cys Ala Ala Cys His Gln Pro Asp Gly Lys Gly		
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Val Pro Asn Ala Phe Pro Pro Leu Ala Asn Ser Asp Tyr Leu Asn Ala		
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Asp His Ala Arg Ala Ala Ser Ile Val Ala Asn Gly Leu Ser Gly Lys		
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Ile Thr Val Asn Gly Asn Gln Tyr Glu Ser Val Met Pro Ala Ile Ala		
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Leu Ser Asp Gln Gln Ile Ala Asn Val Ile Thr Tyr Thr Leu Asn Ser		
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Lys Lys Thr Lys Pro Asn		
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23

17

17

22

27

SEQUENCE LISTING

<110> Joelle Thonnard

<120> Novel Compounds

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<150> 9921691.3

<151> 1999-09-14

<160> 10

<170> FastSEQ for Windows Version 4.0

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<212> DNA

<213> Moraxella catarrhalis

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<211> 502

<212> PRT

<213> Moraxella catarrhalis

<400> 2

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Pro	Lys	Ser	Ser	Thr	Val	Asp	Ala	Ala	Lys	Thr	Ala	Asn	Ala	Asp	
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Asn	Ala	Ala	Ser	Gln	Glu	His	Gln	Gly	Glu	Leu	Pro	Val	Ile	Asp	Ala
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Ile	Val	Thr	His	Ala	Pro	Glu	Val	Pro	Pro	Val	Asp	Arg	Asp	Asp	His
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Pro	Ala	Lys	Val	Val	Val	Lys	Met	Glu	Thr	Val	Glu	Lys	Val	Met	Arg
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Leu	Ala	Asp	Gly	Val	Glu	Tyr	Gln	Phe	Trp	Thr	Phe	Gly	Gly	Gln	Val
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Pro	Gly	Gln	Met	Ile	Arg	Val	Arg	Glu	Gly	Asp	Thr	Ile	Glu	Val	Gln
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Phe	Ser	Asn	His	Pro	Asp	Ser	Lys	Met	Pro	His	Asn	Val	Asp	Phe	His
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Ala	Ala	Thr	Gly	Pro	Gly	Gly	Ala	Glu	Ala	Ser	Phe	Thr	Ala	Pro	
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Gly	His	Thr	Ser	Thr	Phe	Ser	Phe	Lys	Ala	Leu	Gln	Pro	Gly	Leu	Tyr
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Val	Tyr	His	Cys	Ala	Val	Ala	Pro	Val	Gly	Met	His	Ile	Ala	Asn	Gly
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Met	Tyr	Gly	Leu	Ile	Leu	Val	Glu	Pro	Lys	Glu	Gly	Leu	Pro	Lys	Val
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Asp	Lys	Glu	Tyr	Tyr	Val	Met	Gln	Gly	Asp	Phe	Tyr	Thr	Lys	Gly	Lys
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Tyr	Gly	Glu	Gln	Gly	Leu	Gln	Pro	Phe	Asp	Met	Glu	Lys	Ala	Ile	Arg
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Glu	Asp	Ala	Glu	Tyr	Val	Val	Phe	Asn	Gly	Ser	Val	Gly	Ala	Leu	Thr
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Leu	Pro	Glu	Gly	Ala	Pro	Gln	Ala	Ile	Asp	Thr	Gln	Glu	Ala	Pro	Lys
					370			375							380
Thr	Pro	Ala	Pro	Ala	Asn	Leu	Gln	Glu	Gln	Ile	Lys	Ala	Gly	Lys	Ala
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Thr	Tyr	Asp	Ser	Asn	Cys	Ala	Ala	Cys	His	Gln	Pro	Asp	Gly	Lys	Gly
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Val Pro Asn Ala Phe Pro Pro Leu Ala Asn Ser Asp Tyr Leu Asn Ala
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 Leu Ser Asp Gln Gln Ile Ala Asn Val Ile Thr Tyr Thr Leu Asn Ser
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Pro Lys Ser Ser Thr Val Asp Ala Ala Ala Lys Thr Ala Asn Ala Asp
 35 40 45

Asn Ala Ala Ser Gln Glu His Gln Gly Glu Leu Pro Val Ile Asp Ala
 50 55 60

Ile Val Thr His Ala Pro Glu Val Pro Pro Val Asp Arg Asp His
 65 70 75 80

Pro Ala Lys Val Val Val Lys Met Glu Thr Val Glu Lys Val Met Arg
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Leu Ala Asp Gly Val Glu Tyr Gln Phe Trp Thr Phe Gly Gly Gln Val
 100 105 110

Pro Gly Gln Met Ile Arg Val Arg Glu Gly Asp Thr Ile Glu Val Gln
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Phe Ser Asn His Pro Asp Ser Lys Met Pro His Asn Val Asp Phe His
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Ala Ala Thr Gly Pro Gly Gly Ala Glu Ala Ser Phe Thr Ala Pro
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Gly His Thr Ser Thr Phe Ser Phe Lys Ala Leu Gln Pro Gly Leu Tyr
 165 170 175

Val Tyr His Cys Ala Val Ala Pro Val Gly Met His Ile Ala Asn Gly
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Met Tyr Gly Leu Ile Leu Val Glu Pro Lys Glu Gly Leu Pro Lys Val
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Asp Lys Glu Tyr Tyr Val Met Gln Gly Asp Phe Tyr Thr Lys Gly Lys
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Tyr Gly Glu Gln Gly Leu Gln Pro Phe Asp Met Glu Lys Ala Ile Arg
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Glu Asp Ala Glu Tyr Val Val Phe Asn Gly Ser Val Gly Ala Leu Thr
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Gly Glu Asn Ala Leu Lys Ala Lys Val Gly Glu Thr Val Arg Leu Phe
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Val Gly Asn Gly Gly Pro Asn Leu Thr Ser Ser Phe His Val Ile Gly
 275 280 285

Glu Ile Phe Asp Lys Val His Phe Glu Gly Gly Lys Gly Glu Asn His
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Asn Ile Gln Thr Thr Leu Ile Pro Ala Gly Gly Ala Ala Ile Thr Glu
 305 310 315 320

Phe Lys Val Asp Val Pro Gly Asp Tyr Val Leu Val Asp His Ala Ile
 325 330 335

Phe Arg Ala Phe Asn Lys Gly Ala Leu Gly Ile Leu Lys Val Glu Gly
 340 345 350

Glu Glu Asn His Glu Ile Tyr Ser His Lys Gln Thr Asp Ala Val Tyr
 355 360 365

Leu Pro Glu Gly Ala Pro Gln Ala Ile Asp Thr Gln Glu Ala Pro Lys
 370 375 380

Thr Pro Ala Pro Ala Asn Leu Gln Glu Gln Ile Lys Ala Gly Lys Ala
 385 390 395 400

Thr Tyr Asp Ser Asn Cys Ala Ala Cys His Gln Pro Asp Gly Lys Gly
 405 410 415

Val Pro Asn Ala Phe Pro Pro Leu Ala Asn Ser Asp Tyr Leu Asn Ala
 420 425 430

Asp His Ala Arg Ala Ala Ser Ile Val Ala Asn Gly Leu Ser Gly Lys
 435 440 445

Ile Thr Val Asn Gly Asn Gln Tyr Glu Ser Val Met Pro Ala Ile Ala
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 Leu Ser Asp Gln Gln Ile Ala Asn Val Ile Thr Tyr Thr Leu Asn Ser
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